

Reinforcement Schedules

How often do you give the reinforcer?

- Every time or just sometimes you see the behavior.



Continuous v. Partial Reinforcement



Continuous

- Reinforce the behavior **EVERYTIME** the behavior is exhibited.
- Usually done when the subject is first learning to make the association.
- Acquisition comes really fast.
- But so does extinction.

Partial

- Reinforce the behavior only **SOME** of the times it is exhibited.
- Acquisition comes more slowly.
- ***But is more resistant to extinction.***
- **FOUR** types of Partial Reinforcement schedules.



Ratio Schedules

Fixed Ratio

- Provides a reinforcement after a **SET** number of responses.



Reinforcement is based upon **your responses or actions.**

Variable Ratio

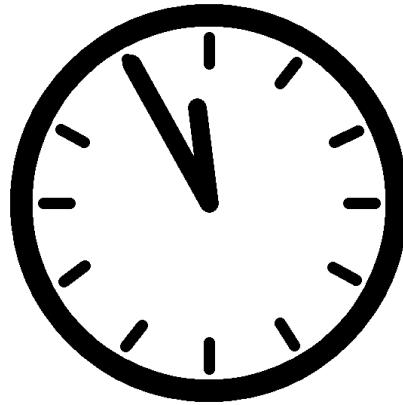
- Provides a reinforcement after a **RANDOM** number of responses.
- Very hard to get acquisition but also very resistant to extinction due to its unpredictability.



Interval Schedules

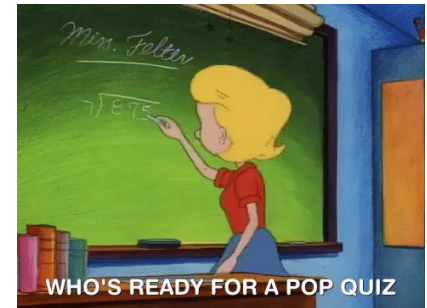
Fixed Interval

- Requires a **SET amount of time** to elapse before giving the reinforcement.



Variable Interval

- Requires a **RANDOM amount of time** to elapse before giving the reinforcement.
- Very hard to get acquisition but also very resistant to extinction.
- Produces slow, steady responses



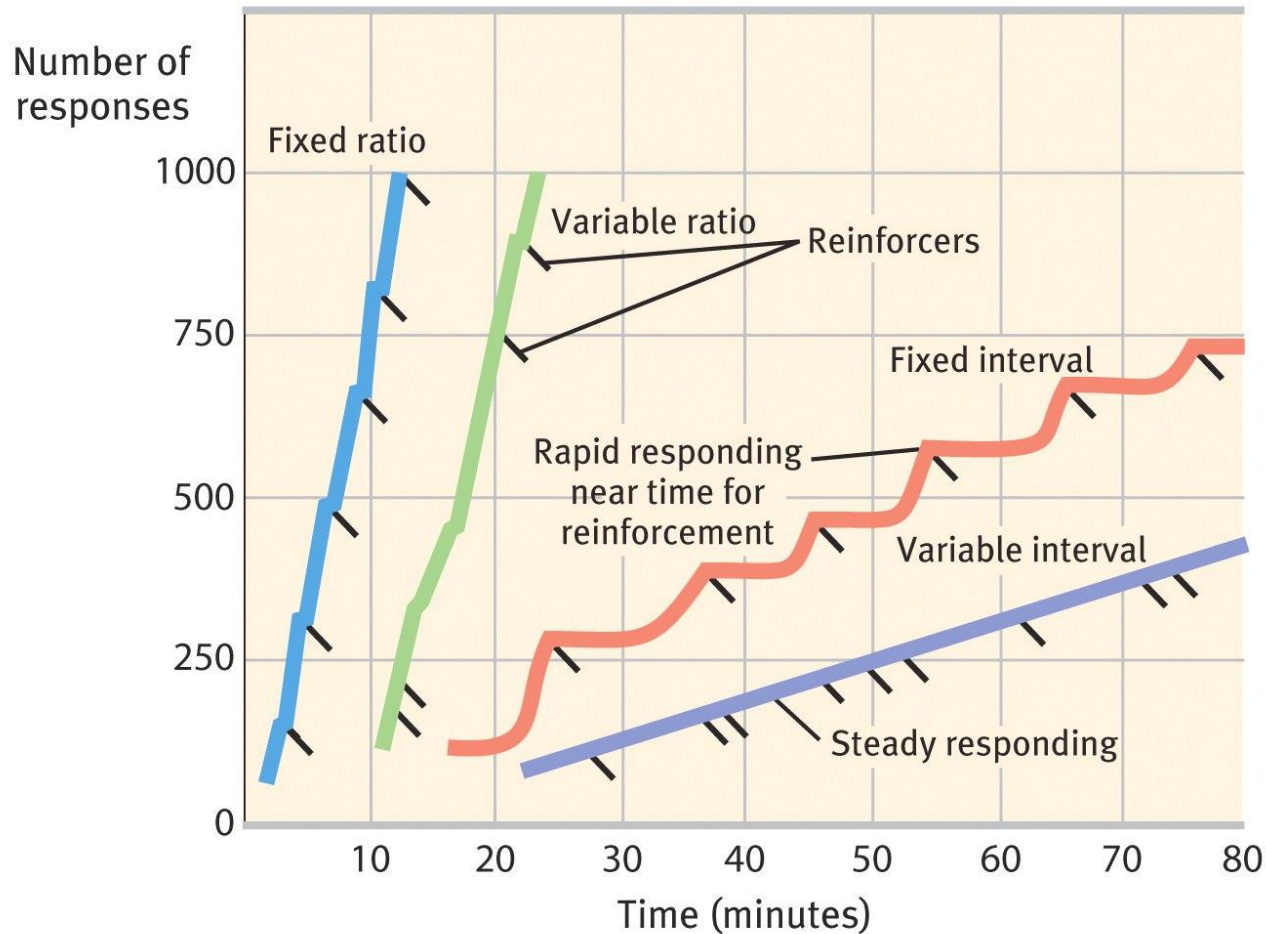
Reinforcement is based upon **the passage of time.**

	Number of Times	Amount of Time
Know	Fixed-Ratio	Fixed-Interval
Don't know	Variable-Ratio	Variable-Interval

Fixed Ratio – Best way to *learn* behavior

Variable Ratio – Best way to *maintain* behavior.

Schedules of Reinforcement



Accidental Reinforcement Can Cause Superstitious Behavior

- A belief, not based on human reason or scientific knowledge, that future events may be influenced by one's behavior in some magical or mystical way.
- Superstitious behavior: learned because it happened to be followed by a reinforcer, even though this behavior was not the cause of the reinforcer.
- Skinner trained superstitious behavior in hungry pigeons.

He reasoned that when reinforcement occurred, it would be paired with whatever response the pigeons had just performed.

Instances of accidental reinforcement triggering superstitious behavior is common among people.

Conditioning and superstition with Derren Brown



How do we actually use Operant Conditioning Principles?

In shaping, what is reinforced is some *approximation* of the target behavior.

Do we wait for the subject to deliver the desired behavior?

Sometimes, we use a process called **shaping**.

Shaping is reinforcing small steps on the way to the desired behavior.



To train a dog to get your slippers, you would have to reinforce him in small steps. First, to find the slippers. Then to put them in his mouth. Then to bring them to you and so on...this is shaping behavior.



To get Barry to become a better student, you need to do more than give him a massage when he gets good grades. You have to give him massages when he studies for ten minutes, or for when he completes his homework. Small steps to get to the desired behavior.

Shaping

